

INTERNATIONAL SEARCH REPORT

International Application No

/GB2004/003501

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B19/16 E21B33/068 E21B33/08 E21B21/10 F16K5/06
F16K5/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E21B F16K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 298 385 A (GORDON JACKSON JOHN ET AL) 17 January 1967 (1967-01-17) column 1, line 66 - column 2, line 16; figures 1-4	1-5, 9-12, 14-33, 35, 37-41, 43-51, 53-55
Y	column 3, lines 42-47 column 4, line 57 - column 5, line 20	14
X	US 4 448 267 A (CRAWFORD GEORGE M ET AL) 15 May 1984 (1984-05-15) figures 14,15	1-3,9, 11,19, 20,23, 43-47, 50,53-55

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

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E earlier document but published on or after the international filing date

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

4 January 2005

Date of mailing of the international search report

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

van Berlo, A

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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X	WO 03/025334 A (SHELL CANADA LTD ; VAN RIET EGBERT JAN (NL); SHELL INT RESEARCH (NL)) 27 March 2003 (2003-03-27) page 7, column 3	27
X	US 4 566 494 A (ROCHE JOSEPH R) 28 January 1986 (1986-01-28) the whole document	43
A	US 2002/134555 A1 (PIETRAS BERND ET AL) 26 September 2002 (2002-09-26) paragraphs '0065! - '0067!; figures 5,6	1,25,27, 39,40,43
A	US 4 646 844 A (ALEXANDER GABRIEL G ET AL) 3 March 1987 (1987-03-03) figures 1,2	1
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Information on patent family members

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